1. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-3x+7} - \sqrt{8x+8} = 0$$

A. All solutions lead to invalid or complex values in the equation.

B. $x_1 \in [-2.89, -0.37]$ and $x_2 \in [0.33, 4.33]$

C. $x \in [1.09, 1.63]$

D. $x \in [-0.53, 0.06]$

E. $x_1 \in [-0.53, 0.06]$ and $x_2 \in [0.33, 4.33]$

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2. What is the domain of the function below?

$$f(x) = \sqrt[7]{8x+9}$$

A. $(-\infty, \infty)$

B. The domain is $[a, \infty)$, where $a \in [-1.67, -1.11]$

C. The domain is $(-\infty, a]$, where $a \in [-2.68, -0.99]$

D. The domain is $[a, \infty)$, where $a \in [-0.9, -0.84]$

E. The domain is $(-\infty, a]$, where $a \in [-0.98, 0.99]$

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3. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-63x^2 - 32} - \sqrt{92x} = 0$$

A. $x \in [-0.73, -0.31]$

B. $x_1 \in [-0.92, -0.72]$ and $x_2 \in [-2.57, 0.43]$

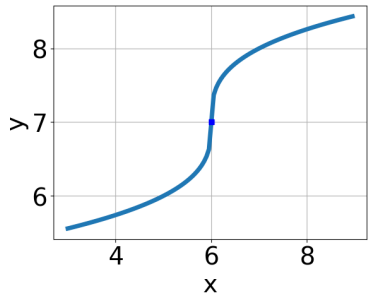
C. All solutions lead to invalid or complex values in the equation.

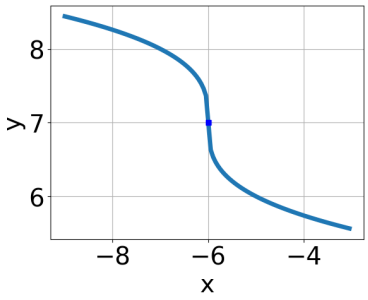
D. $x_1 \in [0.74, 1.27]$ and $x_2 \in [-0.43, 2.57]$

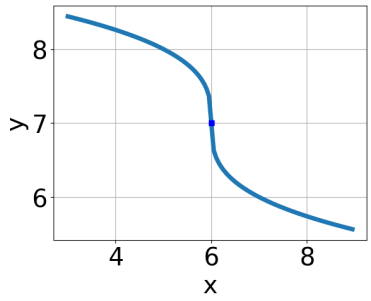
E. $x \in [-0.92, -0.72]$

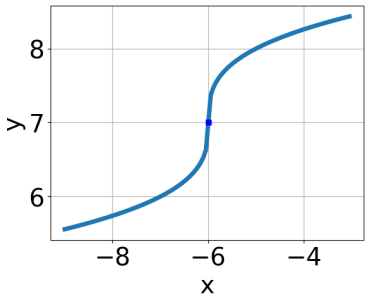
4. Choose the graph of the equation below.

$$f(x) = -\sqrt[3]{x-6} + 7$$

A. 

C. 

B. 

D. 

E. None of the above.

5. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-15x^2 - 24} - \sqrt{49x} = 0$$

A. $x_1 \in [-3.5, -1.4]$ and $x_2 \in [-1.6, 0.4]$

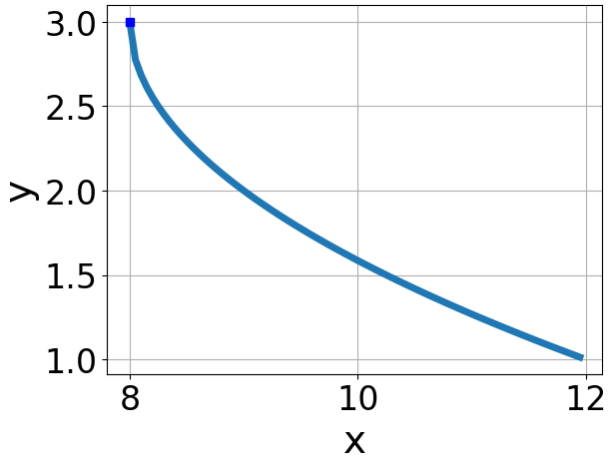
B. $x \in [-3.5, -1.4]$

C. $x \in [-1.2, -0.3]$

D. All solutions lead to invalid or complex values in the equation.

E. $x_1 \in [1.7, 5.2]$ and $x_2 \in [-0.4, 4.6]$

6. Choose the equation of the function graphed below.



A. $f(x) = \sqrt{x-8}+3$

B. $f(x) = -\sqrt{x-8}+3$

C. $f(x) = -\sqrt{x+8}+3$

D. $f(x) = \sqrt{x+8}+3$

E. None of the above

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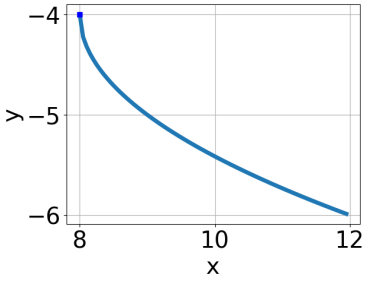
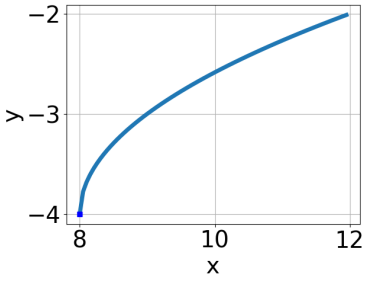
7. Choose the graph of the equation below.

$$f(x) = -\sqrt{x+8}-4$$

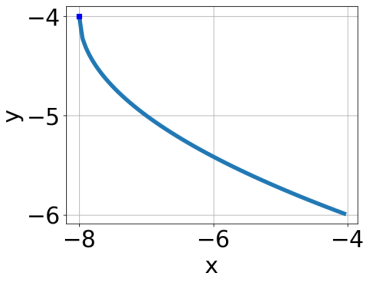
A.



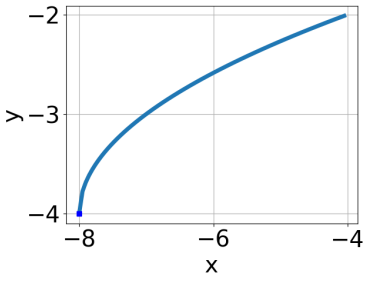
C.



B.

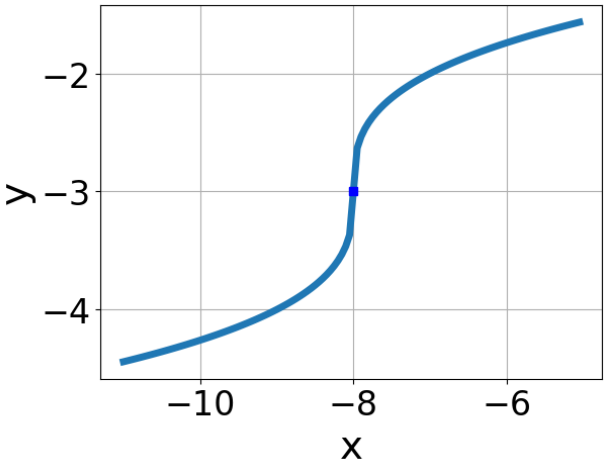


D.



E. None of the above.

8. Choose the equation of the function graphed below.



A. $f(x) = \sqrt{x+8} - 3$

B. $f(x) = -\sqrt{x-8} - 3$

C. $f(x) = \sqrt{x-8} - 3$

D. $f(x) = -\sqrt{x+8} - 3$

E. None of the above

9. What is the domain of the function below?

$$f(x) = \sqrt[6]{5x-8}$$

A. $(-\infty, \infty)$

B. $[a, \infty)$, where $a \in [-0.57, 0.71]$

C. $(-\infty, a]$, where $a \in [1, 1.75]$

D. $[a, \infty)$, where $a \in [0.88, 2.21]$

E. $(-\infty, a]$, where $a \in [0.56, 1.32]$

10. Solve the radical equation below. Then, choose the interval(s) that the

solution(s) belongs to.

$$\sqrt{-6x-5}-\sqrt{9x-4}=0$$

A. $x \in [-0.47, 0.01]$

B. $x \in [-0.63, -0.23]$

C. $x_1 \in [-0.87, -0.76]$ and $x_2 \in [0.25, 0.5]$

D. All solutions lead to invalid or complex values in the equation.

E. $x_1 \in [-0.87, -0.76]$ and $x_2 \in [-1.44, 0.22]$
